

### REMARKS

Re-examination and reconsideration of the subject matter identified in caption, pursuant to and consistent with 37 C.F.R. §1.116, and in light of the remarks which follow, are respectfully requested.

Initially, Applicants renew their request that the Examiner acknowledge the claim for priority under 35 U.S.C. §119 based upon Japanese Patent Application No. 2000-030094 and the filing of a certified copy of the Japanese Application in the Patent and Trademark Office on January 31, 2001.

Turning to the Office Action, claims 2, 3, 11 and 13 were finally rejected under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 6,069,291 to Rossin et al. with newly cited U.S. Patent No. 4,812,170 to Humphries being relied upon "to show inherent state of fact." The Examiner's rationale is set forth on pages 2-3 of the Office Action. Reconsideration of this rejection is requested for at least the following reasons.

The invention of Rossin et al. '291 relates to the decomposition of perfluoroalkanes by contact with  $\text{Al}_2\text{O}_3$ . The  $\text{Al}_2\text{O}_3$  may be stabilized by adding an element selected from those listed in column 3, lines 3-7 and column 4, lines 1-8 of this document. Magnesium is listed as one of the elements which may be added. The Office Action refers to Example IV of the Patent and alleges that the method of preparing the magnesium-aluminum oxide catalyst inherently yields a  $\text{MgO}/\text{Al}_2\text{O}_3$  mixture. Reliance is placed on Humphries '170 in support of this position.

A review of the working examples of Rossin et al. '291 inevitably leads to the conclusion that the additional components are present as free metals, except for examples which use zirconium oxide. Thus, Example IV refers to magnesium,

Example V to lanthanum, Examples VI and VII to chromium, Examples VIII and IX to cobalt, Examples X, XI and XII to cerium, Examples XIII to XV refer to zirconium oxide, Example XVI refers to zirconia and cobalt. The only specific mention of oxides is ZrO; otherwise, the free element is described.

In Example IV, magnesium nitrate was added to a slurry of pseudoboehmite alumina and the slurry heated to 110°C - 125°C until dry and then calcined at 535°C. There is no evidence that MgO is present, only magnesium is mentioned.

Humphries '170 discloses that heating magnesium nitrate at 330°C decomposes the compound to MgO. This temperature is a far cry from the calcination temperature of 535°C disclosed by Rossin et al. '291. Applicants respectfully submit that the disclosure of Humphries '170 does not support the Examiner's position that the reaction conditions in Examples IV of Rossin et al. '291 inherently produce MgO.

To support a rejection based on inherency, the Examiner must provide factual and technical grounds establishing that the inherent feature necessarily flows from the disclosures of the prior art. It is well established that "[t]he fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." In re Rijckaert, 9 F.3d 1531, 1534, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' In re Robertson, 169 F.3d 743, 745, 49 U.S.P.Q.2d 1949, 1950-51 (Fed. Cir. 1999)." "In relying upon the theory of inherency,

the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Ex parte Levy, 17 U.S.P.Q.2d 1461,1464 (Bd. Of Pat. Apps. & Inter. 1990)." Note M.P.E.P. §2112.

Thus, inherency must flow as a necessary conclusion from the prior art, not simply a possible one. Applicants respectfully submit that there is no basis in fact and/or technical reasoning to reasonably support a conclusion that the allegedly inherent characteristic (i.e. production of MgO) necessarily flows from the teachings of the reference.

The Office Action also refers to the statement in column 4, lines 45-48 of Rossin et al. '291 that the additional components can be added as oxides. The only oxides disclosed in this reference are cerium oxide and zirconium oxide. Magnesium oxide is not mentioned. When a compound is not specifically named, but instead it is necessary to select portions of teachings within a reference and combine them, anticipation can only be found if one of ordinary skill would immediately envision the compound. M.P.E.P. §2131.02, page 2100-72. Respectfully, one would not at once envision magnesium oxide from the aforementioned disclosure particularly where the actual working example directed to adding magnesium does not use MgO.

For at least the above reasons, the §102(e) rejection over Rossin et al. '291 should be reconsidered and withdrawn. Such action is earnestly requested.

Claims 1-3, 6, 7 and 9-13 were rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 6,110,436 to Scholz et al. for the reasons given on pages 3-4 of the Office Action. Reconsideration of this rejection is requested for at least the reasons which follow.

The process disclosed in this reference involves removing fluorinated compounds from gas streams by contacting the gas streams with a gamma-alumina sorbent. The reference discloses that the alumina can be doped with metals of Groups Ia, IIa, IVa, Ib, IIb, IVb, VIb, VIIb and VIIIb as well as "oxides and other compounds of these metals" (column 3, lines 42-45). No specific dopants are disclosed.

It will readily be observed that the above disclosure of possible dopants literally encompasses many hundreds of metals, metal oxides and metal compounds. No direction is given in Scholz et al. '436 to any specific compounds and certainly not the compounds specified in the present claims.

In order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The motivation to modify the relied on prior art must flow from some teaching in the art that suggests the desirability or incentive to make the modification needed to arrive at the claimed invention. In re Napier, 55 F.2d 610,613; 34 U.S.P.Q.2d 1782,1784 (Fed. Cir. 1995). Obviousness cannot be established by modifying the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the modification. In re Geiger, 815 F.2d 686,688; U.S.P.Q.2d 1276,1278 (Fed. Cir. 1987).

The fact that a claimed subgenus is encompassed by a prior art genus is not sufficient by itself to establish a *prima facie* case of obviousness (In re Baird, 16 F.3d 380; 29 U.S.P.Q.2d 1550). To establish a *prima facie* case of obviousness in a genus-subgenus chemical composition situation, it is essential that some motivation be found to make the claimed invention in light of the prior art teachings. Applicants submit that there is no teaching or suggestion in Scholz et al. '436 that would have motivated those of ordinary skill in this art to select an alkaline earth metal compound and specifically MgO, from all the possible permutations and combinations encompassed by the disclosure of the reference. Nor would there have been a reasonable expectation of success by selecting alkaline earth metal compounds as dopants in the process of Scholz et al. 436.

Accordingly, for at least these reasons, the §103(a) rejection based on Scholz et al. '436 should be withdrawn. Such action is earnestly solicited.

Claims 4, 5 and 8 were rejected under 35 U.S.C. §103(a) as unpatentable over Scholz et al. '436 in view of U.S. Patent No. 5,164,163 to Aoki et al. for the reasons set forth on page 4 of the Office Action. Reconsideration of this rejection is requested for at least the following reasons.

The apparatus disclosed in Scholz et al. '436 is designed to effect reaction between gamma-alumina and fluorinated compounds in gaseous streams to remove the fluorinated compounds. The apparatus of Aoki et al. '163 is designed to effect steam reforming of hydrocarbons. No disclosure is seen in either reference that would motivate those of ordinary skill to look to the steam reforming apparatus of Aoki et al. '163 for improvements in the gas cleansing apparatus of Scholz et al.

'436. Nor does the combination of references suggest the reactant described in claim 4.

For at least the aforementioned reasons, the §103(a) rejection based on Scholz et al. '436 in view of Aoki et al. '163 should be reconsidered and withdrawn. Such action is respectfully requested.

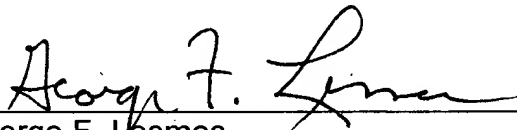
From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order and such action is earnestly solicited. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned at his earliest convenience.

Respectfully submitted,

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